Chem Pro WA 2917
Pier 91 No Date
3b

# GENERAL WASTE ANALYSIS

All prospective incoming wastes will be tested for compatability with Chempro handling, storage, and treatment systems.

A. Sampling: Sampling will be adapted to the waste form, consistency, generation, and storage. Generally the customer will be relied upon to provide representative samples, based upon their experience with the material. Representative sampling methods are those such as prescribed by ASTM and the EPA.

Retest: The waste will be retested whenever the results of routine inspection of each shipment suggest that it is misidentified, or that its properties have changed. At a minimum, each waste will be retested annually.

B. Parameters: The specific parameters for which a waste will be tested vary with the prospective handling and treatment methods. Parameters are selected with three aims:

1. To screen against possible hazards or insufficiencies in handling treatment or storage.

2. To identify and quantify the hazardous characteristics of the waste.

3. To establish the efficiency of a proposed treatment.

Customer Results: Customer supplied results will be accepted on an informational basis only. They will not be taken in lieu of the chemical and physical examination specified below.

1. General Character: Where such information is not provided, the following qualitative tests will be performed.

   a. Solubility in Water-Density -- pH: Into a test tube containing water add several drops (or 0.2g) agitate to mix. Observe whether complete or partial mixing occurs, whether a new phase appears above or below the water, or whether there is insoluble sediment. Determine the pH of the water-mixture.

   b. Flammability: Test by placing a small amount on a laboratory spatula in the flame of a bunsen burner.

Note: In all manipulations, the analyst should be alert to any reactions, evocution of gas, heat, etc., or the presence of unusual colors, odors, phases, which indicate possible hazards, components which would remain untreated or other problems.

Compatibility with Handling and Storage Systems: materials typical of those currently handled generally do not require further testing to determine compatibility with handling and storage systems. Prior to mixing acid or alkaline solutions, in plant trial mixing is performed on samples. In order to observe any unusual reacti

2. Hazardous Characteristics:

a. Aqueous Wastes: Aqueous wastes will be tested for all parameters listed on the appropriate sewer discharge permit, unless it is proposed to treat the waste specifically for that component. Examples of such parameters are pH, metals ( Cd, Cr, Cu, Ni, Pb, Zn), oil, grease, phenol, and cyanide. The methods to be used for these analyses are found in "Standard Methods For The Examination Water and Waste Water," and in "Methods For Chemical Analysis of Water and Wastes" (EPA).

b. Sludges: Sludges are tested according to the EPA EP Toxicity Test," the Washington State DOE Leachability Test, the DOE Extraction Procedure for halogenated hydrocarbons, and polycyclic aromatic hydrocarbons. In addition, the DOE often requires bio-assay of acute toxicity (e.g. rat and fish tests). See also "Test Methods for Evaluating Solid Wastes" (EPA).

c. Oils and Solvents: Oils and solvents are tested for water and solid content. Either by visual examination or by ASTM D -- "Water and Sediment by Centrifugation."

d. Other Hazardous Wastes: Other hazardous wastes are generally not handled at Chemical Processors. When necessary these will be examined as deemed necessary on the basis of their identification.

3. Trial Treatments: Trial treatments will be conducted on all wastes proposed for treatment which are not being treated currently at Chemical Processors. The objects of these trials are to establish the effectiveness of treatment, and to reveal any hazards or difficulties which might arise in the course of treatment, and to determine compatibility with existing treatment systems or optimum conditions for new treatments. If it is proposed to integrate the waste into an on going treatment process, the proposed waste will be mixed with a composite of those currently being treated, a treatment sequence will be conducted on the mixture, and the result tested versus the established parameters fof that treatment if the waste is to be treated separately, trials will be conducted to optimize treatment conditions.

Examples of such trials are trial distillations for the Georgetown plant, trial phenol treatments for Pier 91 and the compatibility test for the Tacoma pH heavy metals treatment.

Records: Records of these waste analysis and trial treatments will be maintained on file both in the Chemical Processors laboratory and in the appropriate plant.

Inspection of Shipments: Each shipment of waste will be inspected prior to handling. The material in each tank or container will be sampled and inspected visually and chemically according to the protocols set forth below.

Solvents: Solids, density mixing in water, and flammability.

Oil: Water and sediment by centrifugation.

Water (Aqueous): pH, phenol, hexavalent chromium, (if pH above 6.0) cyanide.

Also Note: Anything unusual in appearance.

# CHEMICAL PROCESSORS INC.
# GENERATOR'S WASTE MATERIAL PROFILE SHEET

CP 0699

**A GENERAL INFORMATION**

GENERATOR NAME

FACILITY ADDRESS

TRANSPORTER

TRANSPORTER PHONE

GENERATOR EPA I.D.

GENERATOR STATE I.D.

TECHNICAL CONTACT TITLE PHONE

NAME OF WASTE

PROCESS GENERATING WASTE

**B PHYSICAL CHARACTERISTICS**

COLOR

PHYSICAL STATE @ 70°F
SOLID SEMI SOLID
LIQUID POWDER

LAYERS
MULTILAYERED SINGLE PHASED
BI-LAYERED

FREE LIQUIDS
YES NO VOLUME %

| | | |
|---|---|---|
| ph | < 2 | 7.1-10 |
| | 2-4 | 10.1-12.5 |
| | 4.1-6.9 | > 12.5 |
| | 7 | EXACT |
| | N/A | |

| | | |
|---|---|---|
| SPECIFIC GRAVITY | < .8 | 1.3-1.4 |
| | .8-1.0 | 1.5-1.7 |
| | 1.1-1.2 | > 1.7 |
| | EXACT | |

| | | |
|---|---|---|
| FLASH POINT | < 70°F | > 200°F |
| | 70°F-100°F | NO FLASH |
| | 101°F-139°F | EXACT |
| | 140°F-200°F | |
| | CLOSED CUP | |
| | OPEN CUP | |

**C CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)**

%
%
%
%
%
%
%
%
%
%

**D METALS TOTAL (PPM) EPA EXTRACTION PROCEDURE (MG/L)**

| | |
|---|---|
| ARSENIC (As) | SELENIUM (Se) |
| BARIUM (Ba) | SILVER (Ag) |
| CADMIUM (Cd) | COPPER (Cu) |
| CHROMIUM (Cr) | NICKEL (Ni) |
| MERCURY (Hg) | ZINC (Zn) |
| LEAD (Pb) | THALLIUM (Ti) |
| CHROMIUM HEX (Cr + 6) | |

**E OTHER COMPONENTS TOTAL (PPM)**

| | |
|---|---|
| CYANIDES | AMINES |
| SULFIDES | PCB'S |
| | PHENOLICS |

**F SHIPPING INFORMATION**

D.O.T. HAZARDOUS MATERIAL? YES NO

PROPER SHIPPING NAME

HAZARD CLASS I.D. NO. R.Q.

METHOD OF SHIPMENT: BULK LIQUID BULK SOLID
DRUM (TYPE/SIZE)

ANTICIPATED VOLUME GALS. CUBIC FEET
OTHER

PER: ONE TIME WEEK MONTH
QUARTER YEAR

**G HAZARDOUS CHARACTERISTICS**

REACTIVITY: NONE PYROPHORIC SHOCK SENSITIVE
EXPLOSIVE WATER REACTIVE OTHER

OTHER HAZARDOUS CHARACTERISTICS
NONE RADIOACTIVE ETIOLOGICAL
PESTICIDE MANUFACTURING WASTE OTHER

EPA/STATE HAZARDOUS WASTE YES NO

WASTE I.D. #

TESTED FOR DANGEROUS WASTE CRITERIA:
NO YES (ATTACH RESULTS)

I HEREBY CERITIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE TITLE DATE

THE UNDERSIGNED CERTIFIES THAT HE/SHE OBTAINED A REPRESENTATIVE SAMPLE OF THE WASTE MATERIAL ABOVE REFERENCED, AND THAT THE FOLLOWING REPRESENTATIONS ARE TRUE AND CORRECT.

SAMPLING METHOD:

AMOUNT:

SOURCE OF MATERIAL SAMPLED:

NAME (Print)

SIGNATURE

DATE:

CHEMICAL PROCESSORS, INC.
5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108

PHONE: (206) 767-0350

Dear

The waste material described in the profile sheet(s) has been reviewed by Chempro.

WPS# _____ _____
_____ _____
_____ _____

This material is acceptable for recycling and/or disposal. Chempro has the appropriate permit(s) for, and will accept this waste. This is in accord with WAC 173-303-290.

Enclosed you will find 2 copies of the pricing information for this material. Both copies need to be signed and returned to Chempro.

If you have any questions, please call the Sales Office at (206) 767-0350.

Sincerely,

A. H. Koch
Sales/Marketing

CHEMPRO
CHEMICAL PROCESSORS, INC.
5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108
PHONE: (206) 767-0350

Pier 91

## INPUT MONITORING

All incoming shipments will be checked.

Paperwork
Sample
Check
Retain

BEFORE UNLOADING

Drivers are forbidden to make transfers.

If you have any doubt, refer to your supervisor before unloading. If he is unavailable, divert that load to one of the two pools.

You are responsible for learning these instructions and carrying them out.

When a load comes in:
1. Check the paperwork.
   Fill out the waste receipt.
2. Sample the load.
   Label a retain with date and waste receipt
3. Check the sample

Watch out for the following:

Paperwork: Source unidentified; material identification incomplete (For example "waste water")

On all water dropped to the separator watch out for:

Appearance: Any distinct color: red, yellow, green or blue or extremely dark, thick or muddy

Odor: Strong odors of acid ammonia, phenol or solvents

pH: Below 4 or above 9.5 - Hexavalent chromium
Phenol (any positive test

If you see any of these, don't off load it!

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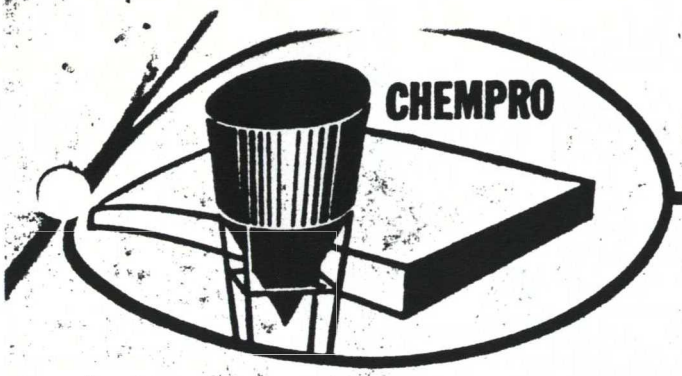
PAPERWORK FIRST

Read the manifest - Fill out the waste receipt.

Note: Truck, driver, source, identification of material.

Under source name: Company
Location
Tank # or ships name
Process

Under identification include everything written on the manifest (don't abbreviate) as well as anything the driver can tell you.

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## SAMPLE - RETAIN

Water: On all drops to the separator (even from a treated tank) take a sample first! Connect the lines, flush them through (10 gallons or so). Grab a sample and shut off the flow.

Oil: On all truck deliveries, sample the oil through the bleed valve on the pump or on the truck. Be sure to flush enough through to get a good sample.

## RETAIN

Pour some of the sample in a retain cup, put the lid on. Label the retain with waste receipt number and date.

CHEMPRO

CHEMICAL PROCESSORS, INC.
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SEATTLE, WASHINGTON 98108

PHONE: (206) 767-0350

CHECK IMMEDIATELY

| | |
|---|---|
| Appearance: | Check a color or black or white. Is it light or dark? Clear or cloudy? |
| Odor: | Note any strong odor. Describe it any way you can. |
| Water: | For water test pH, Chrome 6 and Phenol. |
| Oil: | Run BS & W on oil. |

Record your results on the sheet provided, and place it in the clipboard.

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# TEST "A"

pH: To measure pH, gently stir the probe in the sample. Keep oil off the probe, clean the galss bulb with a clean rag and 409. Keep the probe in water at all times.

To adjust the pH meter, put the probe in pH 7 buffer, adjust "calibrate" knob to read 7.0. Put the probe in pH 4 buffer, adjust the "temp" knob to read 4.0. Put the probe in pH 10 buffer, check to see that the meter reads 10.0.

Chrome 6 - spot plate:

1 drop concentrated sulfuric acid chrome A.
2 drops sample.
Fill the well water (approx 10 drops).
1 drop diphenyl carbazide chrome B.

Turns pink to violet. Compare to 10 ppm (parts per million) standard and to blank. (Water only).

Phenol - Spot plate:

2 drops sample
Fill the well with pH 10 buffer - Phenol A
1 drop 4-amino antipyrine Phenol B
1 drop potassium-ferricyanide Phenol C

Turns pink to red.

Compare to 100ppm standard and to blank (water only).

BS & W - oil:

Fill a centrifuge tube to 50 mls with toluene (half full). Fill the rest (50 mls) with the sample oil. Stopper with a cork and mix. Centrifuge for at least 3 minutes. Carefully withdraw the tube and examine it for water and sediment as the oil flows away. If you have doubts, centrifuge it again. Multiply the number mls BS & W by 2 for BS & W %.